REMARKS

By way of the present response, claims 1, 5, 9 and 18 are amended. Claims 1-26 remain pending. In view of the following remarks, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

Claims 1, 5 and 9 are amended to address the minor informalities pointed out on page 2 of the office action. Additionally, claims 1, 9 and 18 are amended to recite that the one or more mutators applied to the portion of the original document were used to mutate the portion of the identified stored document, and to broaden the claims in other respects. Support for the amendments is found, for example, in paragraphs 00021, 00023 and 00025.

Starting on page 2 of the action, the Office rejects claims 1-3, 5, 9-12, 14, 16, 18-21, 23, and 25 under 35 U.S.C. 103(a) as allegedly being unpatentable over Hind et al (US Patent No. 6,463,440) in view of Zlotnick (US Patent No. 6,778,703). With respect to independent claims 1, 9 and 18, the Office asserts Hind et al teaches a system in which a source/original document is comprised of content data (XML) and style/layout data (column 1, lines 40-47), uses one or more elements as arguments for a matching system to compare against the same elements in at least a portion each of a plurality of stored documents (column 5, lines 5-25: whereas, a matching system is used to compare characteristics used as arguments in a match system against a the same characteristics in a plurality of stored layouts/styles), a determination system that identifies the stored document with the portion which is closest to the arguments used for the matching system (claim 1: whereas, through partial matching, a style document is selected based on the closest matching characteristic(s) sent to the matching system), and a mutation system that applies one or more mutators to the portion of the original document which were used in the portion of the identified stored document (whereas, each style sheet has one or more "template rule constructs" that is/are used to mutate an original document (column 1, lines 61-67)). The Office acknowledges Hind et al does not teach a system that compares one or more elements of at least a portion of a original document against the same elements in at least a portion each of a plurality of stored documents, and a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing, but asserts Zlotnick teaches a system that compares one or more elements of at least a portion of a original document against the same elements in at least a portion each of a plurality of

stored documents (whereas, for each portion compared, icons representing elements of the original document, are compared to icons in a plurality of stored documents (column 11, lines 57-60)), a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing (whereas, a portion/area of a first template/document, is being compared to other document/templates, and a stored document/template is selected based on the closest matching score (column 2, lines 38-45).

The Office considers Zlotnick and Hind et al to be analogous art because they are from the same problem solving area of dynamic selection of template/layout documents. The Office then concludes that it would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Hind et al's matching system such that it would have further compared elements in the original document and identified a stored document based on the elements closest to the portion of the original document as the method is taught by Zlotnick's system. The combination of Hind et al and Zlotnick would have allowed Hind et al's system to have been able to use style data of an original document as input to the matching system, thus dynamically selecting the best style sheet document based on the original style/layout factors.

To the contrary, neither Hind et al. nor Zlotnick, whether considered individually or in any combination, disclose that an identified stored document, which is determined to have a portion closest to a portion of an original document, has had one or more mutators applied to that portion of the identified stored document. Consequently, the Hind et al. and Zlotnick documents fail to teach or suggest the clamed features of "a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing ... a mutation system that applies one or more mutators to the portion of the original document <u>which were applied to mutate the portion of the identified stored document</u>," as recited in independent claim 1, and likewise the claimed processes of "identifying the stored document with the portion which is closest to the portion of the original document based on the comparing ... applying one or more mutators to the portion of the original document <u>which were applied to mutate the portion of the identified stored document</u>," as set forth in independent claims 9 and 18.

In contrast, the Hind et al. patent is directed to retrieving style sheets from a data repository based upon matching one or more stored characteristics of a style sheet against a pattern (column 8, lines 15-19). According to Hind et al., an attribute storing characteristics of a style sheet and an attribute storing the identification of a style sheet are stored in an LDAP object (column 9, lines 31-43). When a pattern is matched against the characteristics stored in the LDAP objects, a style sheet from the repository is identified for that pattern. However, even if one were to consider, for the sake of argument, that the Hind et al. objects could reasonably be construed to be a "stored document," as claimed, there is no mention or suggestion whatsoever in Hind et al. of any mutation applied to these stored objects, much less an application of that mutation to a portion of an original document. Thus, it is respectfully submitted that Hind et al. does not describe, teach or suggest "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1. For similar reasons, Hind et al. does not teach or suggest the features of "applying one or more mutators ... which were applied to mutate the portion of the identified stored document" set forth in claims 9 and 18.

The Zlotnick patent does not remedy the shortcomings pointed out above with respect to amended independent claims 1, 9 and 18. Rather, Zlotnick teaches an apparatus and method of form document recognition, which involve identifying a particular form based on a plurality of different form templates whose order of input to the system is not known in advance (column 2, lines 21-23). To determine which template a document is based, reference areas on each stored template are chosen and compared with reference areas of the form document. The comparison includes scoring each template according to how well the reference areas of the form document match with corresponding reference areas of the template (column 2, lines 41-48). After the best overall match is determined, Zlotnick extracts information filled into the form according to its registration with the best-matching template (column 2, lines 48-52). It is respectfully submitted, however, that the templates described in Zlotnick for extracting information from a filled-in form are not analogous to the objects described in Hind et al. for identifying a style sheet. Furthermore, templates in Zlotnick do not relate to claimed "stored documents," which include a portion that was mutated by one or more mutators, and that same one or more mutators are applied to a portion of the original document. Rather, the apparatus and method of Zlotnick operate to

identify a template on which a form is based, and then intelligently extract information from the form after it is known what particular form is being used by the document.

There is simply no description in the Zlotnick patent of one or more mutators applied to templates, and thus no teaching or suggestion in Zlotnick of applying any such mutators to form documents. Hence, Zlotnick likewise fails to teach or suggest the features of "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1, and "applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as set forth in claims 9 and 18. Accordingly, no combination of the Hind et al. and Zlotnick patents would have taught or suggested the claimed subject matter.

Claims 2-3, 5, 10-12, 14, 16, 19-21, 23, and 25 depend from one of independent claims 1, 9 and 18, and are therefore allowable at least for the above reasons, and further for the additional features recited.

The action also includes, at pages 8-12, a rejection of claims 4, 13, and 22 under 35 U.S.C. 103(a) as allegedly being unpatentable over Hind et al. and Zlotnick in further view of Brown et al. (US Patent No. 6,880,014); and a rejection of claims 6-8, 15, 17, 24, and 26 under 35 U.S.C. 103(a) as allegedly being unpatentable over Hind et al and Zlotnick in further view of Wanderksi et al. (US Patent No. 6,519,617). However, claims 4, 6-8, 13, 15, 22, 24 and 26 depend from one of independent claims 1, 9 and 18, and are patentable at least for the above reasons. Furthermore, it is respectfully submitted that neither the ordering system description in Brown et al. nor the output system disclosed in Wanderski et al. would have rendered independent claims 1, 9 and 18 obvious, whether considered alone or in any combination with Hind et al. and Zlotnick. Hence, the additional features set forth in each of the dependent claims, in combination with the novel and non-obvious combinations of features recited in the independent claims, define further points of distinction not taught or suggested in the applied documents.

The case-based approach set forth in Applicants' claims facilitates continuous storage of the determined layouts for use in determining the layout of future documents, and

thus provides a system and method for a dynamic document layout that can learn new intelligent mutations during operations. The Hind et al., Zlotnick, Brown et al. and Wanderksi et al. patents do not describe such an approach, and thus do not suggest the advantageous features of the presently claimed subject matter. Further, case-based mutators can be combined with genetic algorithms to provide for a more efficient and reliable automated scheme for dynamic document layout.

      In view of all of the foregoing, applicant submits that this case is in condition for allowance and such allowance is earnestly solicited.

                        Respectfully submitted,

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